



May 22, 2007

Mr. Bruce D. Thibodeau, PE  
Regional Engineer – Harbor Region  
Department of Conservation and Recreation  
251 Causeway Street  
Boston, MA 02114

RE: Environmental Sampling and Investigation  
Spoil Area H, 310 River Street, Neponset River  
Mattapan, Massachusetts.

Dear Mr. Thibodeau:

Per the request of DCR and our proposal dated April 30, 2007, URS Corporation (URS) has completed the evaluation of surficial soils in the vicinity of the Neponset River bank at the above-referenced location.

## **BACKGROUND**

The Neponset River was reportedly dredged in the 1960s and the dredged sediments were reportedly placed along the shores of the River at that time. Recent investigations of disposal sites located along the river have identified the presence of polychlorinated biphenyls (PCBs) and Lead in the river sediments. The purpose of this project was to collect 5 surficial soil samples (0-12") from the vicinity of existing canoe launch areas, which are accessed by the public from the adjacent Ryan Playground. Based on a site visit conducted by URS on April 27, 2007, two canoe launch areas are present and consist of wooden ties installed into the shoreline. A path runs parallel to the river along the top of the bank and is accessed by three connecting paths, which extend through the chain link fencing along the edge of the playground areas. The subject area consists of a wooded area between the ball-fields of the playground and the bank of the Neponset River. The subject area is essentially flat with one walking path parallel to the river and connecting paths at a few locations between the fields and the canoe launches. The trees are estimated at up to 50 years old. The relatively flat subject area is approximately 6 feet above the mean water level in the River and the bank of the river is steeply inclined throughout the subject area.

## **FIELD SAMPLING SUMMARY**

On May 3, 2007, Dave Gorden, Certified Professional Soil Scientist with URS Corporation, collected five surface soil samples using a hand auger from 0 to 12 inches at five separate locations near the Neponset River (see Figure 1 - Spoil Area H Surface Soil Sampling Locations). Between each sampling location, excess soil was removed from the auger, and the auger was decontaminated with a soap and water wash followed by a deionized water rinse. Soil samples from each location were placed in separate gallon-size polyethylene bags. The soil in each bag was mixed prior to transferring it to a laboratory-approved 9-ounce amber glass container. A chain of custody for the soil samples was completed and a courier for Alpha Woods Hole Laboratory of Westborough, MA picked up the soil samples. Sample locations

were photographed to document their location (see Appendix A - Spoil Area H Photograph Summary).

The following bullets identify the soil sample location at Spoil Area H and describe the physical properties of the soil collected:

- Ryan CL 1 is a blank fine sandy loam to 1" then a brown fine sandy loam
- Ryan CL 2 is a brown sandy loam to 2" then a brown sandy loam with gravel
- Ryan CL 3 is a dark brown sandy loam with gravel
- Ryan CL 4 is a brown sandy loam with gravel
- Ryan CL 5 is a black sandy loam to 2", then an orange brown sandy loam to 5", then a swirled black and brown sandy loam.

The five soil samples were analyzed for PCBs by EPA Method 8082 and for Resource Conservation and Recovery Act (RCRA) 8 metals by EPA Method Series 6000/7000.

## **RESULTS**

A summary of the laboratory data is provided in Table 1 – Spoil Area H Laboratory Data Summary, with applicable standards; the complete laboratory report is included in Appendix B – Spoil Area H Laboratory Report. The results indicated that with the exception of total chromium in samples Ryan CL 2, Ryan CL 3, and Ryan CL 5, all results were below Massachusetts Contingency Plan (MCP) Reportable Concentrations (RCS-1). Low concentrations of PCBs and Lead were detected in the samples, but all results are below the most stringent DEP Standards (RCS-1).

Chromium is present everywhere in our environment and is found in three forms: metal ore, trivalent chromium (Cr III), and hexavalent chromium (Cr VI). The trivalent form occurs naturally in many fresh vegetables and fruits, meat, grains, and yeast. Relatively insoluble, it is the most prevalent form in surface soils where oxidation processes (which convert chromium from the hexavalent to trivalent form) are most common. Considered carcinogenic, hexavalent chromium also occurs naturally, notably in water-saturated (reducing) conditions, but it is an indicator of human pollution.

URS analyzed the three samples with total chromium concentrations above MCP RC S1 criteria for trivalent and hexavalent chromium by EPA Method 7196A. The results indicated that the chromium in these samples was trivalent chromium and that hexavalent chromium was not detected. The concentrations of trivalent chromium are below the applicable MCP RCS-1 standards.

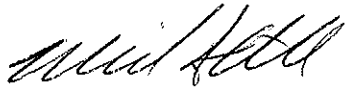
## **CONCLUSIONS**

Five surficial soil samples were collected and analyzed for Metals and PCBs. Results indicated the presence of low concentrations of Lead, PCBs, and trivalent Chromium. All results are below DEP standards indicating no significant risk to human health.

Mr. Bruce Thibodeau  
May 22, 2007  
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If you have any questions, please contact me at (617) 542-4244.

Sincerely,  
**URS Corporation**

A handwritten signature in black ink, appearing to read "Michael Stiller", written in a cursive style.

Michael Stiller, PE, LSP  
Project Manager

**Attachments:**

Figure 1 – Spoil Area H Surface Soil Sampling Locations  
Table 1 – Spoil Area H Laboratory Data Summary  
Appendix A – Spoil Area H Photograph Summary  
Appendix B – Spoil Area H Laboratory Report

**FIGURE 1**

**Spoil Area H  
Surface Soil Sampling Locations  
310 River Street, Mattapan, MA  
May 3, 2007**



Note: Surface soil samples were collected between 0 and 12 inches.

TABLE 1

**Spoil Area H**  
**310 River Street - Mattapan, Massachusetts**  
**Laboratory Data Summary**  
**May 3, 2007**

LOCATION	RYAN CL 1 0-1'	RYAN CL 2 0-1'	RYAN CL 3 0-1'	RYAN CL 4 0-1'	RYAN CL 5 0-1'
SAMPLING DATE	03-MAY-07	03-MAY-07	03-MAY-07	03-MAY-07	03-MAY-07
LAB SAMPLE ID	L0706355-01	L0706355-02	L0706355-03	L0706355-04	L0706355-05

	MCP RCS1	Units	Q	Q	Q	Q	Q
Solids, Total	na	%	72	84	76	84	84
pH	na	SU	4.5	4.9		4.8	

## Hexavalent Chromium by MCP 7196A

Chromium, Hexavalent	30	mg/kg	NA	0.95	U	1	U	NA	0.95	U
Oxidation/Reduction Potential	na	mv	NA	470		480		NA	490	
Trivalent Chromium	1000	mg/kg	NA	43		65		NA	48	

## Total Metals by MCP 6000/7000 series

Arsenic, Total	20	mg/kg	3.6	5.8		8.3		3.1	5.8	
Barium, Total	1000	mg/kg	42	25		36		20	27	
Cadmium, Total	2	mg/kg	0.55	U	0.47	U	0.53	U	0.47	U
Chromium, Total	30*	mg/kg	10	43*		65*		18	48*	
Lead, Total	300	mg/kg	54	92		160		62	96	
Mercury, Total	20	mg/kg	0.11	U	0.61		0.85		0.22	0.6
Selenium, Total	400	mg/kg	2.7	U	2.4	U	2.6	U	2.3	U
Silver, Total	100	mg/kg	0.55	U	0.47	U	0.53	U	0.47	U

## Polychlorinated Biphenyls by MCP 8082

Aroclor 1016	2	mg/kg	0.0463	U	0.0397	U	0.219	U	0.0397	U	0.0397	U
Aroclor 1221	2	mg/kg	0.0463	U	0.0397	U	0.219	U	0.0397	U	0.0397	U
Aroclor 1232	2	mg/kg	0.0463	U	0.0397	U	0.219	U	0.0397	U	0.0397	U
Aroclor 1242	2	mg/kg	0.0463	U	0.0397	U	0.219	U	0.0397	U	0.0397	U
Aroclor 1248	2	mg/kg	0.0463	U	0.0397	U	0.219	U	0.0397	U	0.0397	U
Aroclor 1254	2	mg/kg	0.0463	U	0.212		0.833		0.0462		0.11	
Aroclor 1260	2	mg/kg	0.0463	U	0.0647		0.219	U	0.0397	U	0.0397	U
Aroclor 1262	2	mg/kg	0.0463	U	0.0397	U	0.219	U	0.0397	U	0.0397	U
Aroclor 1268	2	mg/kg	0.0463	U	0.0397	U	0.219	U	0.0397	U	0.0397	U

\* - see break-out analysis for trivalent and hexavalent chromium concentrations

NA - not analyzed or not applicable



## PHOTOGRAPHIC LOG





## PHOTOGRAPHIC LOG





## PHOTOGRAPHIC LOG

Photo No. 5	Date 5/03/07
Direction Photo Taken:  North	
Description:  View of soil sample location Ryan CL 5	

A photograph of a wooded area. In the foreground, a tree with a thick, dark trunk stands on the left. A metal pole with a pink and black handle is planted in the ground near the tree. To the right, a wooden utility pole is visible. The ground is covered with dry leaves and some green grass. In the background, a black metal fence runs across the frame, and behind it, there are houses and more trees. The sky is bright and clear.





## ANALYTICAL REPORT

Lab Number: L0706355

Client: URS Corporation  
260 Franklin Street  
Suite 300  
Boston, MA 02110

ATTN: David Gorden

Project Name: RYAN CANOE LAUNCH

Project Number: RYAN CANOE LAUNCH

Report Date: 05/10/07

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (200305), NJ (MA935), RI (LAO00065), ME (2006012), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** RYAN CANOE LAUNCH  
**Project Number:** RYAN CANOE LAUNCH

**Lab Number:** L0706355  
**Report Date:** 05/10/07

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>
L0706355-01	RYAN CL 1 0-1'	310 RIVER STREET, MATTAPAN-MA
L0706355-02	RYAN CL 2 0-1'	310 RIVER STREET, MATTAPAN-MA
L0706355-03	RYAN CL 3 0-1'	310 RIVER STREET, MATTAPAN-MA
L0706355-04	RYAN CL 4 0-1'	310 RIVER STREET, MATTAPAN-MA
L0706355-05	RYAN CL 5 0-1'	310 RIVER STREET, MATTAPAN-MA



Project Name: RYAN CANOE LAUNCH

Lab Number: L0706355

Project Number: RYAN CANOE L

Report Date: 05/10/07

**MADEP MCP Response Action Analytical Report Certification**

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

<b>An affirmative response to questions A, B, C &amp; D is required for "Presumptive Certainty" status</b>		
A	Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B	Were all QA/QC procedures required for the specified analytical methods(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D	VPH and EPH methods only: Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	NA
<b>A response to questions E and F is required for "Presumptive Certainty" status</b>		
E	Were all QC performance standards and recommendations for the specified method(s) achieved?	YES
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	NO
<b>For any questions answered "No", please refer to the case narrative section on the following page(s).</b>		

Please note that sample matrix information is located in the Sample Results section of this report.



**Project Name:** RYAN CANOE LAUNCH  
**Project Number:** RYAN CANOE LAUNCH

**Lab Number:** L0706355  
**Report Date:** 05/10/07

### Case Narrative

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

#### Report Submission

This report replaces the report issued May 7, 2007. The report has been amended to include the results for Hexavalent Chromium and Trivalent Chromium on L0706355-02, -03, and -05.

#### MCP Related Narratives:

##### PCB

L0706355-02 has Aroclor1260 reported using fewer than three peaks required by the method. It is quantitated with two peaks. This is due to multiple Aroclors present in the sample and is done to prevent excess quantitation of concentration. No further actions taken.

L0706355-03 has elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the sample.

The WG279130 LCS, LCSD and Method Blank were re-analyzed due to continuing calibration criteria not met in original analysis.

##### Metals

In reference to question F:

At the client's request, all submitted samples were not analyzed for the full MCP list of compounds specified for the Method.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Title: Technical Director

Date: 05/10/07



# ORGANICS

# PCBS



**Project Name:** RYAN CANOE LAUNCH  
**Project Number:** RYAN CANOE LAUNCH

**Lab Number:** L0706355  
**Report Date:** 05/10/07

### SAMPLE RESULTS

Lab ID: L0706355-01 R  
 Client ID: RYAN CL 1 0-1'  
 Sample Location: 310 RIVER STREET, MATTAPAN-MA  
 Matrix: Soil  
 Analytical Method: 64,8082  
 Analytical Date: 05/05/07 17:27  
 Analyst: SS  
 Percent Solids: 72%

Date Collected: 05/03/07 05:45  
 Date Received: 05/03/07  
 Field Prep: Not Specified  
 Extraction Method: EPA 3545  
 Extraction Date: 05/03/07 19:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/04/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
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#### Polychlorinated Biphenyls by MCP 8082

Aroclor 1016	ND		ug/kg	46.3	1
Aroclor 1221	ND		ug/kg	46.3	1
Aroclor 1232	ND		ug/kg	46.3	1
Aroclor 1242	ND		ug/kg	46.3	1
Aroclor 1248	ND		ug/kg	46.3	1
Aroclor 1254	ND		ug/kg	46.3	1
Aroclor 1260	ND		ug/kg	46.3	1
Aroclor 1262	ND		ug/kg	46.3	1
Aroclor 1268	ND		ug/kg	46.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	47		30-150	A
2,4,5,6-Tetrachloro-m-xylene	57		30-150	B
Decachlorobiphenyl	49		30-150	B

**Project Name:** RYAN CANOE LAUNCH  
**Project Number:** RYAN CANOE LAUNCH

**Lab Number:** L0706355  
**Report Date:** 05/10/07

### SAMPLE RESULTS

**Lab ID:** L0706355-02 R  
**Client ID:** RYAN CL 2 0-1'  
**Sample Location:** 310 RIVER STREET, MATTAPAN-MA  
**Matrix:** Soil  
**Anaytical Method:** 64,8082  
**Analytical Date:** 05/05/07 17:55  
**Analyst:** SS  
**Percent Solids:** 84%

**Date Collected:** 05/03/07 06:00  
**Date Received:** 05/03/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 05/03/07 19:10  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 05/04/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
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#### Polychlorinated Biphenyls by MCP 8082

Aroclor 1016	ND		ug/kg	39.7	1
Aroclor 1221	ND		ug/kg	39.7	1
Aroclor 1232	ND		ug/kg	39.7	1
Aroclor 1242	ND		ug/kg	39.7	1
Aroclor 1248	ND		ug/kg	39.7	1
Aroclor 1254	212		ug/kg	39.7	1
Aroclor 1260	64.7		ug/kg	39.7	1
Aroclor 1262	ND		ug/kg	39.7	1
Aroclor 1268	ND		ug/kg	39.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	A
Decachlorobiphenyl	73		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	68		30-150	B

**Project Name:** RYAN CANOE LAUNCH  
**Project Number:** RYAN CANOE LAUNCH

**Lab Number:** L0706355  
**Report Date:** 05/10/07

### SAMPLE RESULTS

Lab ID: L0706355-03 R  
 Client ID: RYAN CL 3 0-1'  
 Sample Location: 310 RIVER STREET, MATTAPAN-MA  
 Matrix: Soil  
 Analytical Method: 64,8082  
 Analytical Date: 05/05/07 21:02  
 Analyst: SS  
 Percent Solids: 76%

Date Collected: 05/03/07 06:10  
 Date Received: 05/03/07  
 Field Prep: Not Specified  
 Extraction Method: EPA 3545  
 Extraction Date: 05/03/07 19:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/04/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
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#### Polychlorinated Biphenyls by MCP 8082

Aroclor 1254	833		ug/kg	219	5
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Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	43		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	98		30-150	B

**Project Name:** RYAN CANOE LAUNCH  
**Project Number:** RYAN CANOE LAUNCH

**Lab Number:** L0706355  
**Report Date:** 05/10/07

### SAMPLE RESULTS

Lab ID: L0706355-03 R  
 Client ID: RYAN CL 3 0-1'  
 Sample Location: 310 RIVER STREET, MATTAPAN-MA  
 Matrix: Soil  
 Analytical Method: 64,8082  
 Analytical Date: 05/05/07 21:02  
 Analyst: SS  
 Percent Solids: 76%

Date Collected: 05/03/07 06:10  
 Date Received: 05/03/07  
 Field Prep: Not Specified  
 Extraction Method: EPA 3545  
 Extraction Date: 05/03/07 19:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/04/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
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#### Polychlorinated Biphenyls by MCP 8082

Aroclor 1016	ND		ug/kg	219	5
Aroclor 1221	ND		ug/kg	219	5
Aroclor 1232	ND		ug/kg	219	5
Aroclor 1242	ND		ug/kg	219	5
Aroclor 1248	ND		ug/kg	219	5
Aroclor 1260	ND		ug/kg	219	5
Aroclor 1262	ND		ug/kg	219	5
Aroclor 1268	ND		ug/kg	219	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	43		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	98		30-150	B



**Project Name:** RYAN CANOE LAUNCH  
**Project Number:** RYAN CANOE LAUNCH

**Lab Number:** L0706355  
**Report Date:** 05/10/07

### SAMPLE RESULTS

Lab ID: L0706355-04 R  
 Client ID: RYAN CL 4 0-1'  
 Sample Location: 310 RIVER STREET, MATTAPAN-MA  
 Matrix: Soil  
 Analytical Method: 64,8082  
 Analytical Date: 05/05/07 18:24  
 Analyst: SS  
 Percent Solids: 84%

Date Collected: 05/03/07 06:20  
 Date Received: 05/03/07  
 Field Prep: Not Specified  
 Extraction Method: EPA 3545  
 Extraction Date: 05/03/07 19:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/04/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
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#### Polychlorinated Biphenyls by MCP 8082

Aroclor 1254	46.2		ug/kg	39.7	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	47		30-150	A
2,4,5,6-Tetrachloro-m-xylene	58		30-150	B
Decachlorobiphenyl	52		30-150	B

**Project Name:** RYAN CANOE LAUNCH  
**Project Number:** RYAN CANOE LAUNCH

**Lab Number:** L0706355  
**Report Date:** 05/10/07

### SAMPLE RESULTS

**Lab ID:** L0706355-04 R  
**Client ID:** RYAN CL 4 0-1'  
**Sample Location:** 310 RIVER STREET, MATTAPAN-MA  
**Matrix:** Soil  
**Analytical Method:** 64,8082  
**Analytical Date:** 05/05/07 18:24  
**Analyst:** SS  
**Percent Solids:** 84%

**Date Collected:** 05/03/07 06:20  
**Date Received:** 05/03/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 05/03/07 19:10  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 05/04/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
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#### Polychlorinated Biphenyls by MCP 8082

Aroclor 1016	ND		ug/kg	39.7	1
Aroclor 1221	ND		ug/kg	39.7	1
Aroclor 1232	ND		ug/kg	39.7	1
Aroclor 1242	ND		ug/kg	39.7	1
Aroclor 1248	ND		ug/kg	39.7	1
Aroclor 1260	ND		ug/kg	39.7	1
Aroclor 1262	ND		ug/kg	39.7	1
Aroclor 1268	ND		ug/kg	39.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	47		30-150	A
2,4,5,6-Tetrachloro-m-xylene	58		30-150	B
Decachlorobiphenyl	52		30-150	B

**Project Name:** RYAN CANOE LAUNCH  
**Project Number:** RYAN CANOE LAUNCH

**Lab Number:** L0706355  
**Report Date:** 05/10/07

### SAMPLE RESULTS

Lab ID: L0706355-05 R  
 Client ID: RYAN CL 5 0-1'  
 Sample Location: 310 RIVER STREET, MATTAPAN-MA  
 Matrix: Soil  
 Analytical Method: 64,8082  
 Analytical Date: 05/05/07 18:52  
 Analyst: SS  
 Percent Solids: 84%

Date Collected: 05/03/07 06:30  
 Date Received: 05/03/07  
 Field Prep: Not Specified  
 Extraction Method: EPA 3545  
 Extraction Date: 05/03/07 19:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/04/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
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#### Polychlorinated Biphenyls by MCP 8082

Aroclor 1254	110		ug/kg	39.7	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	62		30-150	B

**Project Name:** RYAN CANOE LAUNCH  
**Project Number:** RYAN CANOE LAUNCH

**Lab Number:** L0706355  
**Report Date:** 05/10/07

### SAMPLE RESULTS

**Lab ID:** L0706355-05 R  
**Client ID:** RYAN CL 5 0-1'  
**Sample Location:** 310 RIVER STREET, MATTAPAN-MA  
**Matrix:** Soil  
**Analytical Method:** 64,8082  
**Analytical Date:** 05/05/07 18:52  
**Analyst:** SS  
**Percent Solids:** 84%

**Date Collected:** 05/03/07 06:30  
**Date Received:** 05/03/07  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3545  
**Extraction Date:** 05/03/07 19:10  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 05/04/07

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
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#### Polychlorinated Biphenyls by MCP 8082

Aroclor 1016	ND		ug/kg	39.7	1
Aroclor 1221	ND		ug/kg	39.7	1
Aroclor 1232	ND		ug/kg	39.7	1
Aroclor 1242	ND		ug/kg	39.7	1
Aroclor 1248	ND		ug/kg	39.7	1
Aroclor 1260	ND		ug/kg	39.7	1
Aroclor 1262	ND		ug/kg	39.7	1
Aroclor 1268	ND		ug/kg	39.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	62		30-150	B



Project Name: RYAN CANOE LAUNCH

Lab Number: L0706355

Project Number: RYAN CANOE LAUNCH

Report Date: 05/10/07

### Method Blank Analysis Batch Quality Control

Analytical Method: 64,8082  
 Analytical Date: 05/05/07 12:36  
 Analyst: SS

Extraction Method: EPA 3545  
 Extraction Date: 05/03/07 19:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/04/07

Parameter	Result	Qualifier	Units	RDL
Polychlorinated Biphenyls by MCP 8082 for sample(s): 01-05 Batch: WG279130-1				
Aroclor 1016	ND		ug/kg	33.3
Aroclor 1221	ND		ug/kg	33.3
Aroclor 1232	ND		ug/kg	33.3
Aroclor 1242	ND		ug/kg	33.3
Aroclor 1248	ND		ug/kg	33.3
Aroclor 1254	ND		ug/kg	33.3
Aroclor 1260	ND		ug/kg	33.3
Aroclor 1262	ND		ug/kg	33.3
Aroclor 1268	ND		ug/kg	33.3

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	55		30-150	A
Decachlorobiphenyl	47		30-150	A
2,4,5,6-Tetrachloro-m-xylene	55		30-150	B
Decachlorobiphenyl	58		30-150	B

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RYAN CANOE LAUNCH

**Lab Number:** L0706355

**Project Number:** RYAN CANOE LAUNCH

**Report Date:** 05/10/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Polychlorinated Biphenyls by MCP 8082 Associated sample(s): 01-05 Batch: WG279130-2 WG279130-3					
Aroclor 1016	64	70	40-140	9	30
Aroclor 1260	63	67	40-140	6	30

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		65		30-150	A
Decachlorobiphenyl	53		55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		64		30-150	B
Decachlorobiphenyl	63		67		30-150	B

# METALS

**Project Name:** RYAN CANOE LAUNCH**Lab Number:** L0706355**Project Number:** RYAN CANOE LAUNCH**Report Date:** 05/10/07**SAMPLE RESULTS**

Lab ID: L0706355-01

Date Collected: 05/03/07 05:45

Client ID: RYAN CL 1 0-1'

Date Received: 05/03/07

Sample Location: 310 RIVER STREET, MATTAPAN-MA

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 72%

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals by MCP 6000/7000 series										
Arsenic, Total	3.6		mg/kg	0.55	1	05/04/07 17:00	05/05/07 15:18	EPA 3050B	60,6010B	AI
Barium, Total	42		mg/kg	0.55	1	05/04/07 17:00	05/05/07 15:18	EPA 3050B	60,6010B	AI
Cadmium, Total	ND		mg/kg	0.55	1	05/04/07 17:00	05/05/07 15:18	EPA 3050B	60,6010B	AI
Chromium, Total	10		mg/kg	0.55	1	05/04/07 17:00	05/05/07 15:18	EPA 3050B	60,6010B	AI
Lead, Total	54		mg/kg	2.7	1	05/04/07 17:00	05/05/07 15:18	EPA 3050B	60,6010B	AI
Mercury, Total	ND		mg/kg	0.11	1	05/04/07 20:00	05/07/07 09:57	EPA 7471A	64,7471A	DM
Selenium, Total	ND		mg/kg	2.7	1	05/04/07 17:00	05/05/07 15:18	EPA 3050B	60,6010B	AI
Silver, Total	ND		mg/kg	0.55	1	05/04/07 17:00	05/05/07 15:18	EPA 3050B	60,6010B	AI





**Project Name:** RYAN CANOE LAUNCH**Lab Number:** L0706355**Project Number:** RYAN CANOE LAUNCH**Report Date:** 05/10/07**SAMPLE RESULTS**

Lab ID: L0706355-02

Date Collected: 05/03/07 06:00

Client ID: RYAN CL 2 0-1'

Date Received: 05/03/07

Sample Location: 310 RIVER STREET, MATTAPAN-MA

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 84%

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals by MCP 6000/7000 series										
Arsenic, Total	5.8		mg/kg	0.47	1	05/04/07 17:00	05/05/07 15:22	EPA 3050B	60,6010B	AI
Barium, Total	25		mg/kg	0.47	1	05/04/07 17:00	05/05/07 15:22	EPA 3050B	60,6010B	AI
Cadmium, Total	ND		mg/kg	0.47	1	05/04/07 17:00	05/05/07 15:22	EPA 3050B	60,6010B	AI
Chromium, Total	43		mg/kg	0.47	1	05/04/07 17:00	05/05/07 15:22	EPA 3050B	60,6010B	AI
Lead, Total	92		mg/kg	2.4	1	05/04/07 17:00	05/05/07 15:22	EPA 3050B	60,6010B	AI
Mercury, Total	0.61		mg/kg	0.09	1	05/04/07 20:00	05/07/07 09:59	EPA 7471A	64,7471A	DM
Selenium, Total	ND		mg/kg	2.4	1	05/04/07 17:00	05/05/07 15:22	EPA 3050B	60,6010B	AI
Silver, Total	ND		mg/kg	0.47	1	05/04/07 17:00	05/05/07 15:22	EPA 3050B	60,6010B	AI



**Project Name:** RYAN CANOE LAUNCH**Lab Number:** L0706355**Project Number:** RYAN CANOE LAUNCH**Report Date:** 05/10/07**SAMPLE RESULTS**

Lab ID: L0706355-03

Date Collected: 05/03/07 06:10

Client ID: RYAN CL 3 0-1'

Date Received: 05/03/07

Sample Location: 310 RIVER STREET, MATTAPAN-MA

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 76%

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
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**Total Metals by MCP 6000/7000 series**

Arsenic, Total	8.3		mg/kg	0.53	1	05/04/07 17:00	05/05/07 15:49	EPA 3050B	60,6010B	AI
Barium, Total	36		mg/kg	0.53	1	05/04/07 17:00	05/05/07 15:49	EPA 3050B	60,6010B	AI
Cadmium, Total	ND		mg/kg	0.53	1	05/04/07 17:00	05/05/07 15:49	EPA 3050B	60,6010B	AI
Chromium, Total	65		mg/kg	0.53	1	05/04/07 17:00	05/05/07 15:49	EPA 3050B	60,6010B	AI
Lead, Total	160		mg/kg	2.6	1	05/04/07 17:00	05/05/07 15:49	EPA 3050B	60,6010B	AI
Mercury, Total	0.85		mg/kg	0.10	1	05/04/07 20:00	05/07/07 10:01	EPA 7471A	64,7471A	DM
Selenium, Total	ND		mg/kg	2.6	1	05/04/07 17:00	05/05/07 15:49	EPA 3050B	60,6010B	AI
Silver, Total	ND		mg/kg	0.53	1	05/04/07 17:00	05/05/07 15:49	EPA 3050B	60,6010B	AI



**Project Name:** RYAN CANOE LAUNCH**Lab Number:** L0706355**Project Number:** RYAN CANOE LAUNCH**Report Date:** 05/10/07**SAMPLE RESULTS**

Lab ID: L0706355-04

Date Collected: 05/03/07 06:20

Client ID: RYAN CL 4 0-1'

Date Received: 05/03/07

Sample Location: 310 RIVER STREET, MATTAPAN-MA

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 84%

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals by MCP 6000/7000 series										
Arsenic, Total	3.1		mg/kg	0.47	1	05/04/07 17:00	05/05/07 15:53	EPA 3050B	60,6010B	AI
Barium, Total	20		mg/kg	0.47	1	05/04/07 17:00	05/05/07 15:53	EPA 3050B	60,6010B	AI
Cadmium, Total	ND		mg/kg	0.47	1	05/04/07 17:00	05/05/07 15:53	EPA 3050B	60,6010B	AI
Chromium, Total	18		mg/kg	0.47	1	05/04/07 17:00	05/05/07 15:53	EPA 3050B	60,6010B	AI
Lead, Total	62		mg/kg	2.3	1	05/04/07 17:00	05/05/07 15:53	EPA 3050B	60,6010B	AI
Mercury, Total	0.22		mg/kg	0.10	1	05/04/07 20:00	05/07/07 10:03	EPA 7471A	64,7471A	DM
Selenium, Total	ND		mg/kg	2.3	1	05/04/07 17:00	05/05/07 15:53	EPA 3050B	60,6010B	AI
Silver, Total	ND		mg/kg	0.47	1	05/04/07 17:00	05/05/07 15:53	EPA 3050B	60,6010B	AI



**Project Name:** RYAN CANOE LAUNCH**Lab Number:** L0706355**Project Number:** RYAN CANOE LAUNCH**Report Date:** 05/10/07**SAMPLE RESULTS**

Lab ID: L0706355-05

Date Collected: 05/03/07 06:30

Client ID: RYAN CL 5 0-1'

Date Received: 05/03/07

Sample Location: 310 RIVER STREET, MATTAPAN-MA

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 84%

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
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**Total Metals by MCP 6000/7000 series**

Arsenic, Total	5.8		mg/kg	0.47	1	05/04/07 17:00	05/05/07 15:57	EPA 3050B	60,6010B	AI
Barium, Total	27		mg/kg	0.47	1	05/04/07 17:00	05/05/07 15:57	EPA 3050B	60,6010B	AI
Cadmium, Total	ND		mg/kg	0.47	1	05/04/07 17:00	05/05/07 15:57	EPA 3050B	60,6010B	AI
Chromium, Total	48		mg/kg	0.47	1	05/04/07 17:00	05/05/07 15:57	EPA 3050B	60,6010B	AI
Lead, Total	96		mg/kg	2.4	1	05/04/07 17:00	05/05/07 15:57	EPA 3050B	60,6010B	AI
Mercury, Total	0.60		mg/kg	0.09	1	05/04/07 20:00	05/07/07 10:04	EPA 7471A	64,7471A	DM
Selenium, Total	ND		mg/kg	2.4	1	05/04/07 17:00	05/05/07 15:57	EPA 3050B	60,6010B	AI
Silver, Total	0.49		mg/kg	0.47	1	05/04/07 17:00	05/05/07 15:57	EPA 3050B	60,6010B	AI





Project Name: RYAN CANOE LAUNCH

Lab Number: L0706355

Project Number: RYAN CANOE LAUNCH

Report Date: 05/10/07

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals by MCP 6000/7000 series for sample(s): 01-05 Batch: WG279253-1									
Arsenic, Total	ND		mg/kg	0.40	1	05/04/07 17:00	05/05/07 14:56	60,6010B	AI
Barium, Total	ND		mg/kg	0.40	1	05/04/07 17:00	05/05/07 14:56	60,6010B	AI
Cadmium, Total	ND		mg/kg	0.40	1	05/04/07 17:00	05/05/07 14:56	60,6010B	AI
Chromium, Total	ND		mg/kg	0.40	1	05/04/07 17:00	05/05/07 14:56	60,6010B	AI
Lead, Total	ND		mg/kg	2.0	1	05/04/07 17:00	05/05/07 14:56	60,6010B	AI
Selenium, Total	ND		mg/kg	2.0	1	05/04/07 17:00	05/05/07 14:56	60,6010B	AI
Silver, Total	ND		mg/kg	0.40	1	05/04/07 17:00	05/05/07 14:56	60,6010B	AI

### Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals by MCP 6000/7000 series for sample(s): 01-05 Batch: WG279261-1									
Mercury, Total	ND		mg/kg	0.08	1	05/04/07 20:00	05/07/07 09:52	64,7471A	DM

### Prep Information

Digestion Method: EPA 7471A



# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RYAN CANOE LAUNCH

**Project Number:** RYAN CANOE LAUNCH

**Lab Number:** L0706355

**Report Date:** 05/10/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals by MCP 6000/7000 series Associated sample(s): 01-05 Batch: WG279253-2 WG279253-3					
Arsenic, Total	91	94	75-125	3	30
Barium, Total	88	89	75-125	1	30
Cadmium, Total	95	99	75-125	4	30
Chromium, Total	89	90	75-125	1	30
Lead, Total	90	94	75-125	4	30
Selenium, Total	96	96	75-125	0	30
Silver, Total	93	92	75-125	1	30
Total Metals by MCP 6000/7000 series Associated sample(s): 01-05 Batch: WG279261-2 WG279261-3					
Mercury, Total	93	97	75-125	4	30

# **INORGANICS & MISCELLANEOUS**

**Project Name:** RYAN CANOE LAUNCH**Lab Number:** L0706355**Project Number:** RYAN CANOE LAUNCH**Report Date:** 05/10/07**SAMPLE RESULTS****Lab ID:** L0706355-01**Date Collected:** 05/03/07 05:45**Client ID:** RYAN CL 1 0-1'**Date Received:** 05/03/07**Sample Location:** 310 RIVER STREET, MATTAPAN-MA**Field Prep:** Not Specified**Matrix:** Soil

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry									
Solids, Total	72		%	0.10	1	-	05/03/07 19:54	30,2540G	NM



Project Name: RYAN CANOE LAUNCH

Lab Number: L0706355

Project Number: RYAN CANOE LAUNCH

Report Date: 05/10/07

## SAMPLE RESULTS

Lab ID: L0706355-02  
 Client ID: RYAN CL 2 0-1'  
 Sample Location: 310 RIVER STREET, MATTAPAN-MA  
 Matrix: Soil

Date Collected: 05/03/07 06:00  
 Date Received: 05/03/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Hexavalent Chromium by MCP 7196A									
Chromium, Hexavalent	ND		mg/kg	0.95	1	05/10/07 13:00	05/10/07 12:00	64,7196A	JT
General Chemistry									
Solids, Total	84		%	0.10	1	-	05/03/07 19:54	30,2540G	NM
pH	4.5		SU	-	1	-	05/09/07 19:55	1,9045C	DP
Oxidation/Reduction Potential	470		mv	10	1	-	05/09/07 17:00	68,1498	HG
Trivalent Chromium	43		mg/kg	0.80	1	-	05/10/07 14:00	30,3500-Cr	ED



Project Name: RYAN CANOE LAUNCH

Lab Number: L0706355

Project Number: RYAN CANOE LAUNCH

Report Date: 05/10/07

## SAMPLE RESULTS

Lab ID: L0706355-03  
 Client ID: RYAN CL 3 0-1'  
 Sample Location: 310 RIVER STREET, MATTAPAN-MA  
 Matrix: Soil

Date Collected: 05/03/07 06:10  
 Date Received: 05/03/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Hexavalent Chromium by MCP 7196A									
Chromium, Hexavalent	ND		mg/kg	1.0	1	05/10/07 13:00	05/10/07 12:00	64,7196A	JT
General Chemistry									
Solids, Total	76		%	0.10	1	-	05/03/07 19:54	30,2540G	NM
pH	4.9		SU	-	1	-	05/09/07 19:55	1,9045C	DP
Oxidation/Reduction Potential	480		mv	10	1	-	05/09/07 17:00	68,1498	HG
Trivalent Chromium	65		mg/kg	0.80	1	-	05/10/07 14:00	30,3500-Cr	ED





**Project Name:** RYAN CANOE LAUNCH**Lab Number:** L0706355**Project Number:** RYAN CANOE LAUNCH**Report Date:** 05/10/07**SAMPLE RESULTS**

Lab ID: L0706355-04

Date Collected: 05/03/07 06:20

Client ID: RYAN CL 4 0-1'

Date Received: 05/03/07

Sample Location: 310 RIVER STREET, MATTAPAN-MA

Field Prep: Not Specified

Matrix: Soil

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry									
Solids, Total	84		%	0.10	1	-	05/03/07 19:54	30,2540G	NM



Project Name: RYAN CANOE LAUNCH

Lab Number: L0706355

Project Number: RYAN CANOE LAUNCH

Report Date: 05/10/07

## SAMPLE RESULTS

Lab ID: L0706355-05  
 Client ID: RYAN CL 5 0-1'  
 Sample Location: 310 RIVER STREET, MATTAPAN-MA  
 Matrix: Soil

Date Collected: 05/03/07 06:30  
 Date Received: 05/03/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Hexavalent Chromium by MCP 7196A									
Chromium, Hexavalent	ND		mg/kg	0.95	1	05/10/07 13:00	05/10/07 12:00	64,7196A	JT
General Chemistry									
Solids, Total	84		%	0.10	1	-	05/03/07 19:54	30,2540G	NM
pH	4.8		SU	-	1	-	05/09/07 19:55	1,9045C	DP
Oxidation/Reduction Potential	490		mv	10	1	-	05/09/07 17:00	68,1498	HG
Trivalent Chromium	48		mg/kg	0.80	1	-	05/10/07 14:00	30,3500-Cr	ED



**Project Name:** RYAN CANOE LAUNCH**Lab Number:** L0706355**Project Number:** RYAN CANOE LAUNCH**Report Date:** 05/10/07**Method Blank Analysis  
Batch Quality Control**

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Hexavalent Chromium by MCP 7196A for sample(s): 02-03,05 Batch: WG279857-1									
Chromium, Hexavalent	ND		mg/kg	0.80	1	05/10/07 13:00	05/10/07 12:00	64,7196A	JT

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RYAN CANOE LAUNCH

**Project Number:** RYAN CANOE LAUNCH

**Lab Number:** L0706355

**Report Date:** 05/10/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Associated sample(s): 02-03,05 Batch: WG279731-1					
Oxidation/Reduction Potential	106	-		-	
Associated sample(s): 02-03,05 Batch: WG279783-1					
pH	101	-		-	
Hexavalent Chromium by MCP 7196A Associated sample(s): 02-03,05 Batch: WG279857-2 WG279857-3					
Chromium, Hexavalent	96	97	75-125	1	35

**Matrix Spike Analysis  
Batch Quality Control****Project Name:** RYAN CANOE LAUNCH**Project Number:** RYAN CANOE LAUNCH**Lab Number:** L0706355**Report Date:** 05/10/07

Parameter	Native Sample	MS Added	MS Found	MS	MSD Found	MSD	Recovery	RPD	RPD Limits
				%Recovery		%Recovery	Limits		
Hexavalent Chromium by MCP 7196A Associated sample(s): 02-03,05				QC Batch ID: WG279857-5		QC Sample: L0706355-02		Client ID: RYAN CL 2 0-1'	
Chromium, Hexavalent	ND	1230	920	75	-	-	75-125	-	35

Project Name: RYAN CANOE LAUNCH

Project Number: RYAN CANOE LAUI

# Lab Duplicate Analysis

Batch Quality Control

Lab Number: L0706355

Report Date: 05/10/07

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Associated sample(s): 01-05 QC Batch ID: WG279079-1 QC Sample: L0706380-01 Client ID: DUP Sample					
Solids, Total	84	84	%	0	20
Associated sample(s): 02-03,05 QC Batch ID: WG279731-2 QC Sample: L0706355-02 Client ID: RYAN CL 2 0-1'					
Oxidation/Reduction Potential	470	470	mv	0	
Associated sample(s): 02-03,05 QC Batch ID: WG279783-2 QC Sample: L0706355-02 Client ID: RYAN CL 2 0-1'					
pH	4.5	4.4	SU	2	
Hexavalent Chromium by MCP 7196A Associated sample(s): 02-03,05 QC Batch ID: WG279857-4 QC Sample: L0706355-02 Client ID: RYAN CL 2 0-1'					
Chromium, Hexavalent	ND	ND	mg/kg	NC	35



**Project Name:** RYAN CANOE LAUNCH**Project Number:** RYAN CANOE LAUNCH**Lab Number:** L0706355**Report Date:** 05/10/07**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0706355-01A	Amber 250ml unpreserved	A	N/A	2.5 C	Y	Absent	MCP-7471T,MCP-8082-04,MCP-AG-6010T,MCP-AS-6010T,MCP-BA-6010T,MCP-CD-6010T,MCP-CR-6010T,MCP-PB-6010T,MCP-SE-6010T,TS
L0706355-02A	Amber 250ml unpreserved	A	N/A	2.5 C	Y	Absent	MCP-7471T,MCP-8082-04,MCP-AG-6010T,MCP-AS-6010T,MCP-BA-6010T,MCP-CD-6010T,MCP-CR-6010T,MCP-HEXCR7196-04,MCP-PB-6010T,MCP-SE-6010T,ORP-9045,PH-9045,SPECWC,TS
L0706355-03A	Amber 250ml unpreserved	A	N/A	2.5 C	Y	Absent	MCP-7471T,MCP-8082-04,MCP-AG-6010T,MCP-AS-6010T,MCP-BA-6010T,MCP-CD-6010T,MCP-CR-6010T,MCP-HEXCR7196-04,MCP-PB-6010T,MCP-SE-6010T,ORP-9045,PH-9045,SPECWC,TS
L0706355-04A	Amber 250ml unpreserved	A	N/A	2.5 C	Y	Absent	MCP-7471T,MCP-8082-04,MCP-AG-6010T,MCP-AS-6010T,MCP-BA-6010T,MCP-CD-6010T,MCP-CR-6010T,MCP-PB-6010T,MCP-SE-6010T,TS
L0706355-05A	Amber 250ml unpreserved	A	N/A	2.5 C	Y	Absent	MCP-7471T,MCP-8082-04,MCP-AG-6010T,MCP-AS-6010T,MCP-BA-6010T,MCP-CD-6010T,MCP-CR-6010T,MCP-HEXCR7196-04,MCP-PB-6010T,MCP-SE-6010T,ORP-9045,PH-9045,SPECWC,TS

**Project Name:** RYAN CANOE LAUNCH  
**Project Number:** RYAN CANOE LAUNCH

**Lab Number:** L0706355  
**Report Date:** 05/10/07

## GLOSSARY

### **Acronyms**

- EPA - Environmental Protection Agency.
- LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCSD- Laboratory Control Sample Duplicate: Refer to LCS.
- MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
- MSD - Matrix Spike Sample Duplicate: Refer to MS.
- NA - Not Applicable.
- NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
- ND - Not detected at the reported detection limit for the sample.
- RDL - Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

### **Terms**

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### **Data Qualifiers**

The following data qualifiers have been identified for use under the CT DEP Reasonable Confidence Protocols.

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

J - Estimated value. The analyte was tentatively identified; the quantitation is an estimation. (Tentatively identified compounds only.)

**Project Name:** RYAN CANOE LAUNCH  
**Project Number:** RYAN CANOE LAUNCH

**Lab Number:** L0706355  
**Report Date:** 05/10/07

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 60 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.
- 64 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). August 2004.
- 68 Annual Book of ASTM (American Society for Testing and Materials) Standards following extraction by SW-846 EPA Method 9045C under the requirements of MADEP BWSC, WSC-CAM-VIB. August 2004.

## LIMITATION OF LIABILITIES

Alpha Woods Hole Labs performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Woods Hole Labs shall be to re-perform the work at it's own expense. In no event shall Alpha Woods Hole Labs be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Woods Hole Labs.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## CHAIN OF CUSTODY

PAGE 1 OF 1



Westborough, MA Bayham, MA Bedford, NH  
 TEL: 508-898-9220 TEL: 508-822-9300 TEL: 603-232-8247  
 FAX: 508-898-9193 FAX: 508-822-9288 FAX: 603-628-2241

## Client Information

Client: URS Corporation, Attn: Dave G.

Address: 260 Franklin Street, Suite 300

Boston, MA 02110

Phone: 617.542.4244

Fax: 617.542.3301

Email: david.gorden@urscorp.com

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits: TAT = 48 hours or less

Ryan CL 1 is a blank fine sandy loam; 0-1" then a brown fine sandy loam; Ryan CL 2 is a brown sandy loam to 2" then a brown sandy loam with gravel; Ryan CL 3 is a dark brown sandy loam with gravel; Ryan CL 4 is a brown sandy loam with gravel; Ryan CL 5 is a black sandy loam to 2", then an orange brown sandy loam to 5", then a swirled black and brown sandy loam.

All samples collected 0 to 1 foot.

ALPHA Lab ID  
(Lab Use Only)

Sample ID

Collection  
Date Time

Sample Matrix

Sampler's Initials

RCRA 8

PCBs

XRF - As/Pb (ppm)

Sample Specific Comments

 SAMPLE HANDLING  
☐ Filtration  
☐ Done  
☐ Not Needed  
☐ Lab to do  
☐ Preservation  
☐ Lab to do  
 (Please specify below)

Date Rec'd in Lab: 5/3

ALPHA Job #: 60706355

## Report Information Data Deliverables

☐ FAX  
☒ EMAIL  
☒ ADEX  
☒ Add'l Deliverables

☒ Same as Client Info

PO #: Ryan Canoe Launch

## Regulatory Requirements/Report Limits

State/Fed Program

Criteria

MCP CAM

RC S-1

## MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☒ Yes ☐ No Are MCP Analytical Methods Required?  
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

## ANALYSIS

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
MA MCP or CT RCP?

Relinquished By:

 Container Type  
 Preservative

Date/Time

Received By:

Date/Time

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.